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THE JOURNAL OF EDUCATIONAL SOCIOLOGY

Schools and Colleges Serve in Total War

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THE JOURNAL OF EDUCATIONAL SOCIOLOGY

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The United States Committee on Education Reconstruction—This section of THE JOURNAL will be devoted to the publication of materials, program, and activities of the Subcommittee on Education of the United States Committee on Education Reconstruction, of which DEAN E. GEORGE PAYNE is a member.

Research Projects and Methods in Educational Sociology, FREDERIC M. THRASHER, *Editor.*

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THE JOURNAL is published by The Payne Educational Sociology Foundation, Inc., monthly from September to May, inclusive. Publication and business office, Room 51, 32 Washington Place, New York, N. Y. Editorial office, New York University, Room 41, 32 Washington Place, New York, N. Y. The subscription price is $3.00 per year; the price of single copies is 35 cents. Orders for less than half a year will be charged at the single-copy rate. Advertising Representatives: Macfarland and Heaton, 289 Fourth Avenue, New York, N. Y.

Entered as second-class matter September 27, 1934, at the Post Office at New York, N. Y., under the Act of March 3, 1879.

The contents of previous issues of THE JOURNAL OF EDUCATIONAL SOCIOLOGY *may be found by consulting the* Education Index *or the* Public Affairs Information Service.

The publishers of THE JOURNAL OF EDUCATIONAL SOCIOLOGY are not responsible for the views held by its contributors.

PRINTED IN U. S. A.

The JOURNAL *of*
EDUCATIONAL SOCIOLOGY

A Magazine of Theory and Practice

VOL. 15 FEBRUARY 1942 No. 6

EDITORIAL

Education has mobilized for total war. The vast physical resources and man power of our schools and colleges stand ready to render the highest possible service to the nation.

It is a fortunate coincidence that the first issue of THE JOURNAL, for which the manuscripts were written after Pearl Harbor, should be "Schools and Colleges Serve in Total War" (original title, "Schools and Colleges Serve Total Defense"). To the school, perhaps more than any other institution of society, total war brings the greatest challenge. This challenge is threefold: changing the attitude of children and youth toward peace and war; training in essential knowledge and skills for civilian protection, industrial production, and military aggression; and preserving basic cultural values for the postwar period of national and world reconstruction.

For more than two decades the Axis nations have taught their youth the glories of war and skilled them in the arts of destruction and of death. For these same two decades we in America have taught our youth the fallacy of war and trained them for the pursuits of peace. We have made them skeptical of any statement of government as fallacious propaganda (see *Words That Won the War*). We have told them that wars were made by government bureaucrats in league with huge international financial interests (see *Merchants of Death*). We have taught that America was safe

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between her two friendly oceans. We have developed a false sense of security and smug isolationism. With earnestness and sincerity we taught these fundamental tenets of peace.

Even when the flames of war engulfed half the world, many still believed that if we would pay the price of peace the Americas could be saved the greater cost of war. If such were ever assumed true, the swift movement of world events has demonstrated its fallacy now.

Almost overnight we must "about face" in education. We still hate war, but we know now that peace can be achieved only by tanks and bombs and destroyers and by armed men, that it can be preserved only by destruction of those who first draw the sword and by superior military strength organized on a world basis. It will not be easy to about-face, but if education is to continue to render its high service to the nation it must—it will—accept this new challenge with the same sincerity and the same vigor that it has served the interests of peace.

Knowledge and skill are as essential to the promulgation of war as is conviction for the ultimate values to be achieved through military force. Schools and colleges had already accepted this challenge in the expansion of the defense program (described in the article by J. O. Keller and H. G. Pyle). Much more must be done. Priorities are as applicable to education as to material goods. Tradition alone can no longer determine curricula, or dictate policies. The program of civilian protection of both person and property (*see* article by Arthur J. Wilson) must be expanded beyond the industrial areas, and adapted to varying needs, and must be provided also for villages and rural areas. The needs of industry are continually shifting and must be reflected in the trade training of schools and the technical courses in colleges and universities. There is a growing need for statisticians and economists, and the reconstruction will create a need in the field of the social sciences.

Changes will be necessary in course and credit requirements. The traditional school calendar with the long vacation periods may need

to be dropped for the duration of the war, and schools and colleges —at least sixth grade and above—enter upon a twelve-month production basis.

In all of these changes there is grave danger that there will be open bidding for students, especially on higher levels of education, by lowering of standards and justifying such action by service to the war effort. Some degree of national standardization is imperative. The National Committee on Education and Defense (summarized in Guy E. Snavely's article) is seeking through a national conference on January 3 and 4, 1942, to give direction to these developments.

Finally, education must seek to conserve basic values as the foundation for sane and permanent reconstruction in the postwar period. Even in the face of the terrific crisis of the hour, national and world culture must be preserved; men and women must be trained in essential professions; thought must now be given to the kind of world in which we choose to live when the guns are finally silenced, when industry reverts to an economy of peace, and when war-weary men return to their homes.

One city reports a loss of 32 per cent in high-school enrollment in the junior and senior years. Colleges and universities showed a decrease of more than 10 per cent in the fall of 1941 as compared with 1940. Some decrease is inevitable, but for the nation to lose its educated leadership would be a paramount national catastrophy. The lure of high wages is very great to youth who have seen their fathers unemployed for months and even years. The appeal of patriotic service in the armed forces is genuine and natural. Only by making every hour and every activity in school and college vital and realistic, only by keeping a sane perspective between immediate and ultimate values will education play its vital role in maintaining a continuous supply of trained men for essential services for the months or years immediately ahead and in the re-creation of a new order in which justice and peace may be preserved for the individual, for our nation, and for the world.

FRANCIS J. BROWN

THE UNITED STATES OFFICE OF EDUCATION IN WARTIME

JOHN W. STUDEBAKER

The year 1942 marks the seventy-fifth anniversary of the United States Office of Education. Two years after the Civil War, the 39th Congress

> established, at the city of Washington, a department of education, for the purpose of collecting such statistics and facts as shall show the condition and progress of education in the several States and Territories, and of diffusing such information respecting the organization and management of schools and school systems, and methods of teaching, as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise promote the cause of education throughout the country.[1]

In the decades which followed its establishment, the Federal educational agency, variously denominated an "office" or a "bureau," from time to time took on new duties in addition to those connected with the collection and dissemination of information. The changes in functions of the Office of Education paralleled changes in our educational and governmental establishment as these developed to meet economic and social changes.

A major change occurred in 1933 when the staff and functions of the Federal Board for Vocational Education were transferred to the Office of Education. These functions included the administration of a coöperative Federal-State program of vocational education of less than college grade, and a program of vocational rehabilitation for disabled civilians.

Other changes in the duties of the United States Office of Education in recent years include responsibility for the development of

[1] 39th Congress, Second Session, 1867 (14 Stat. L. 434).

the educational program of CCC camps; the addition of a Library Service Division to serve the educational interests of libraries; the pioneering of demonstration programs of public-affairs forums under State and local school auspices; the preparation and sponsoring of educational radio programs.

As the Office of Education has grown and extended its services it has developed coöperative working relationships with State departments of education, institutions of higher learning, local school systems, and libraries. It has also developed working relationships with other administrative and research agencies of the Federal Government, some of which have carried on educational programs incident to the accomplishment of their purposes. Examples are: relationships with the War Department in the administration of the CCC camp educational program; with the Department of State in managing the exchange of students and professors between the United States and other American republics; with the Smithsonian Institution in the preparation of a series of half-hour educational radio programs.

Since the outbreak of the war in Europe, the United States Office of Education, while continuing to carry on some of its usual duties, has more and more bent its efforts to service directly related to the national emergency. The war-related services of the Office may be described under three headings: (1) the *administration* of coöperative emergency programs of education and training in the States and territories; (2) the provision of leadership, advice, and information to the schools and colleges concerning special educational problems born of the wartime situation; (3) liaison between organized education in its relationships with various Federal administrative agencies whose programs affect the schools and colleges; and correlatively providing these Federal administrative agencies with advisory and auxiliary services respecting their relationships with schools and colleges.

LIAISON BETWEEN SCHOOLS AND FEDERAL ADMINISTRATIVE AGENCIES

Where the work of another Federal administrative agency closely affects schools and colleges the Commissioner of Education frequently appoints a staff member of the Office of Education to act as special liaison officer with that agency. For example, when the Office of Civilian Defense attacked the problem of training auxiliary firemen, policemen, and air-raid wardens in the techniques of protecting life and property in wartime, the Office of Education assigned to the OCD its Consultant in Public Service Training to act as liaison officer and to help work out plans by which the experienced staffs of the Vocational Division of the Office of Education and of the State Boards for Vocational Education might be utilized in training volunteer workers.

Another example of ancillary service of the Office of Education is the use of its staff members by the Public Works Agency in certifying the need for school facilities in military and industrial areas of mushroom growth. With the development of defense boom towns in 1940–1941 local community facilities, including schools, were sorely overtaxed in many localities. The War and Navy Departments, charged by the Congress in 1940 to make a report upon the need for community facilities in defense areas, requested the Office of Education to prepare a special report covering the need for school facilities. This was done, and in 1941 under Public Law 137 the 77th Congress made available $150,000,000 to provide needed community facilities, including schools, in defense areas. The administration of the program financed by this appropriation was made the responsibility of the Federal Works Agency. Applications for Federal funds under the provisions of the Act are filed by local school authorities with the Regional Offices of the Defense Public Works Division of the Federal Works Agency.

Applications for Federal financial assistance for school facilities are then referred by the Defense Public Works Division of the Fed-

eral Works Agency to the United States Office of Education for a "certificate of necessity," which must set forth and substantiate the need for school facilities, including building facilities as well as current expense requirements. These "certificates of necessity" serve as the basis for final approval or disapproval of the school projects applied for.

The Office of Education has already issued the required official certificates of necessity totaling approximately $66,000,000. Many exceedingly complicated problems of educational and fiscal policy and procedure arise in these transactions. The need for additional school-plant facilities, as well as the need for possible Federal financial assistance in operating schools in defense areas, can be known only from firsthand information acquired through field work. To assist local and State educational authorities in determining the adequacy or inadequacy of the existing school facilities in defense areas, the United States Office of Education has provided a staff of specialists on school facilities working out of the offices of the Regional Directors of Defense Health and Welfare Services. These offices are a part of the field organization of the Federal Security Agency. The specialists visit local areas in company with representatives of State departments of education for the purpose of helping to determine actual school needs occasioned by the impact of defense.

The Office of Education, through a Federal Security Agency Committee, is coöperating with other constituent organizations of the Agency and with the National Resources Planning Board and the Public Works Administration in an extensive program of long-time planning for education in the States. A major problem of planning involves a program for improvements in and additions to the nation's physical plant for schools, colleges, and libraries.

A third instance is the coöperation of the United States Office of Education in facilitating the action program of the Treasury Department. The Treasury Department is charged with the responsibility for the sale of defense stamps and bonds to raise funds with

which to finance a part of the war effort. It called upon the Office of Education to assist in bringing to the attention of the schools suggestions for ways in which they might participate in the Defense Savings Program. The Treasury Department with the assistance of the Office of Education is preparing to furnish to the schools a series of manuals for this purpose.

On the inter-American front various sections and divisions of the Office are at work developing projects in close coöperation with the Office of the Coordinator of Inter-American Affairs and the Division of Cultural Relations of the Department of State on the one hand and with State departments of education, colleges and universities, county and city school systems on the other hand.

LEADERSHIP AND CLEARING-HOUSE FUNCTIONS

Throughout the seventy-five years of its history, the United States Office of Education has acted as a clearing house for educational information. This function is performed through publications disseminating the results of educational research and reporting upon newer educational practices both at home and abroad. Through the publication of the official magazine of the Office of Education, *School Life,* firsthand accounts of educational developments are regularly carried to thousands of teachers, educational administrators, and libraries. The Government's defense activities and the relation of these activities to schools and colleges have more recently prompted the revival of a newsletter, *March of Education,* which enables the Office of Education to reach 35,000 school officials with important news of educational developments on ten days' notice.

Aware of the growing quantity of valuable material, pamphlets, leaflets, mimeographed courses of study, etc., developed by the schools in connection with the defense program, the Office of Education launched in 1940 an Information Exchange on Education and National Defense. This Exchange supplies school curriculum committees and citizen groups with loan packets of materials on

such subjects as: Education for Inter-American Understanding, Defense Training, Citizenship Induction Ceremonies, Conservation, Health, Nutrition, and the like. The loan packets, widely circulated by the Exchange, contain Government pamphlets developed by other Federal agencies as well as by the school systems of the States. For example, packets on nutrition include published materials of the Consumer's Counsel Division, Bureau of Home Economics; Surplus Marketing Administration; Consumer Division of the OPM; Nutrition Division of the Office of Defense Health and Welfare Activities; Children's Bureau of the Labor Department; and the United States Public Health Service.

The Office of Education is also publishing many special pamphlets on Education and National Defense which have been given wide distribution. Some of the titles in this series are: "Our Country's Call to Service," "What the Schools Can Do," "Home Nursing Courses in High Schools," "How Libraries May Serve," "Vocational Rehabilitation and National Defense," "What Democracy Means," "Food for Thought," "Education under Dictatorship and in Democracies," "Democracy in the Summer Camp," "Hemisphere Solidarity," "Sources of Information on National Defense."

Working in coöperation with the Federal Radio Education Committee, the Office is circulating to schools, colleges, and radio stations throughout the country scripts and transcriptions helpful in the war effort. It is producing and circulating some fifty motion pictures to be used in training for war service. Following a long-time interest of the Office, supported vigorously by the President in recent years, the Office has set up a School and College Civilian Morale Service. This service is essentially a clearing house for disseminating information to schools, colleges, and libraries which will be helpful to them in connection with the development of civilian morale soundly based on understanding of war issues and problems.

ADMINISTRATION OF COÖPERATIVE PROGRAMS OF EDUCATION AND TRAINING

Since the United States' declaration of war against the Axis, everything else has become subordinate to the one national objective of defeating the brutal war lords of Europe and Asia. New plans for "the victory program" call for a speeding up of activities on all fronts, including the educational front.

On the educational front there had been in progress since July 1, 1940, a nationwide program in schools and colleges to train defense workers to man the production lines to turn out the planes, tanks, ships, guns, and ammunition needed in preparation for such an eventuality as came upon us in December 1941. The regular Office programs of vocational education and rehabilitation involve the judicious use of about $65,000,000, annually, more than one third of which is supplied by the Federal Government. The regular continuing Federally aided program of vocational education enrolled more than 2,000,000 persons during 1941. These trained workers are a distinct defense asset. In addition, more than 2,000,000 other defense workers have received training in an emergency program supported by Federal funds. With the acceleration of war production and the growing shortage of trained workers, this program will be rapidly expanded in 1942.

The function of the Office of Education in connection with the emergency program has been to administer $191,500,000 of Federal funds thus far appropriated to the several States and to institutions for higher education in support of defense-training activities; and to provide general supervision of the program under policies agreed upon by Federal and State officials. In administering this emergency training program the Office of Education has been conscious at all times of the need for safeguarding one of our most cherished democratic traditions; namely, the decentralization of control of the public educational system as vested in the States and their local

governmental subdivisions. The fullest measure of local autonomy has been preserved to the approximately 10,000 communities involved in the defense-training programs.

WHAT OF THE FUTURE

It is perfectly clear that the effective prosecution of the war involves an all-out national effort affecting the whole fabric of our common life. That life is now being more closely integrated under national direction. Programs of nutrition, housing, welfare, education, and many other aspects of our associated living have been reappraised in relation to their contribution to national security and the success of our armed forces in the field.

In this war it takes seventeen men behind the lines to support each man in the front-line military and naval services. It is essential, therefore, that we maintain a high level of health, strength, and well-being throughout the nation in order that we may be continuously effective in backing up our fighting forces. It is clear that during the war period the relationship of the Federal Government to education is going to be much closer and more direct than at any previous time. And the Government will naturally put increasingly heavy responsibilities upon organized education. It seems inevitable that we shall experience a centralizing of direction and control in the National Government. This centralization is not likely to be without its permanent effects upon our postwar political, economic, and social life. What will be the effect upon our traditional conception of the proper role of the Federal Government with respect to education in the States? Both by tradition and by legal interpretation the States have been made primarily responsible for the establishment, maintenance, and operation of schools. Yet since the earliest days of the Republic there has been a continuing national interest and concern for education in the States. The Federal Government early endowed higher and common schools with large grants of land and of surplus tax funds. Following the war between

the States land grants for special educational purposes were begun. Later, the Morrill-Nelson Act appropriated funds for land-grant colleges and universities. Later still the Hatch Act appropriated money for the establishment of agricultural experiment stations in connection with these colleges. In 1914 the Smith-Lever Act provided for agricultural extension work through the land-grant colleges. In 1917 the Smith-Hughes Act made grants in aid to the States for vocational education of less than college grade. All of these appropriations and grants are evidences of a continuing interest of the National Government in programs of education in the States.

Whether we shall witness either during or following this war large appropriations by the Federal Government for new educational purposes remains to be seen. One thing seems clear, however. If funds are appropriated for new educational purposes, legislation should be drafted and funds administered in such fashion as most effectively to guard the freedom of the States and their local governmental subdivisions in their control of the curriculum and the teaching personnel of public education.

It would seem clear also that the dispersion of Federal functions relating to schools and colleges among numerous Federal administrative agencies makes more difficult the assurance that their activities will not be carried on in such a manner as to encroach upon the authority of State and local school officials. More and more the United States Office of Education has become the integrating agency for Federal activities affecting schools and colleges. Thus we avoid needless duplication of educational functions by Federal administrative bureaus and achieve a clarification of channels of communication and influence in relation to the nation's organized educational enterprise.

To be of the largest possible service to the Government in general, to a number of agencies of Government in particular, and to organized education throughout the nation, there was set up in December

1941 the United States Office of Education Wartime Commission which brings together in council the key officials of large educational organizations. It is believed that through the work of this Commission, schools, colleges, and libraries, coöperating with one another and with the Office of Education, will be able to render even greater service in the war effort than ever before. Such a Commission will enable the Office of Education and the Government in general to serve most effectively now and in the future months and perhaps years in assisting organized education to perform more efficiently its indispensable functions in a democracy.

John W. Studebaker, United States Commissioner of Education since 1934, conducted, while Superintendent of Schools in Des Moines, Iowa, an adult-education forum that stimulated a national program. He has developed radio broadcasts, transcriptions, and accompanying syllabi as a part of the service of the Office of Education.

THE COLLEGE IN THE PRESENT EMERGENCY

GUY E. SNAVELY

When the nations of the world reverted to savagery for the second time in a generation by going to war on September 1, 1939, college leaders in the United States immediately organized for action. They foresaw at once that our country would become more or less involved in a short time. And such was the case, even before the forces of education could be fully coördinated.

The leaders in the colleges and universities combined their efforts under the aegis of the American Council on Education, which had been organized by them at the time our country entered World War I as the channel for the combined forces of higher education in the service of the nation. A committee was set up immediately to look after the interests of the colleges in connection with the military services. The committee was composed of representatives from the American Council on Education, the Association of American Colleges, the Association of American Universities, the Association of Land Grant Colleges and Universities, the National Association of State Universities, and the National Catholic Educational Association. This committee was influential in the final formulation of the present Selective Service Act. Upon invitation of the Senate Committee on Military Affairs, it appeared at a hearing on the bill in the early summer of 1940, when it was decided to raise the minimum age limit of persons selected for military service from 18 to 21.

Later in the summer the unified efforts of higher education were joined with those of the leaders in other levels of education in the formation of the National Committee on Education and Defense. This committee, which was organized in August 1940, represents some sixty national educational associations.

The full committee has had meetings about every six months to lay out general policies and hear reports of subcommittees. An

executive committee, 18 in number, meets more often and determines administrative policies.

There are six subcommittees, responsible for the following activities: teaching materials, vocational training, preservice education, college women and national defense, Latin-American educational activities, and military affairs.

The last mentioned subcommittee has been more active than the others because of the rapid change in the military situation. Up to the present, it has been devoting most of its time to selective service. Upon request of the selective service authorities it has coöperated in the drawing up of certain portions of the regulations which deal with college men.

The executive secretary of this committee, as well as of several of the other subcommittees, is Francis J. Brown, on leave of absence from the faculty of New York University under a grant of the Carnegie Corporation. He is the editor of the bulletin *Higher Education and National Defense*. This bulletin goes to colleges, universities, and various Government agencies. It contains factual material concerning developments that are of especial import to the colleges. Through the bulletin definite leadership has been exerted in the promotion of policies and programs of action, especially with regard to selective service.

The Subcommittee on Military Affairs has organized two national conferences. The first one was held in February 1941 at which representatives were present from 450 colleges scattered throughout 42 States. Prominent personages in Government defense agencies participated in this conference. A smaller conference of representatives from college and university associations met on July 30–31, 1941, to consider with representatives from Government departments the needs of national defense and the particular types of service which the colleges could render most effectively.

The Subcommittee on Military Affairs, with the addition of specialists in several educational fields, has served also as a sub-

committee of the Joint Army and Navy Committee on Welfare and Recreation. A number of meetings have been held to discuss plans for an improved educational program for the men in the armed forces. It has been the writer's high privilege to visit officially a number of camps and army posts in Maryland, Alabama, Georgia, and Florida, where he was able to discuss the educational programs with the fort, post, and regimental morale officers. The Subcommittee on Military Affairs has been asked to advise the War Department in the development of plans for the readjustment of men who have completed their military service.

The Subcommittee on College Women and National Defense, under the chairmanship of President Meta Glass of Sweet Briar College, has had several meetings. It has prepared two reports which have been published. The committee urges that young college women should realize that they must continue to secure "an education which will fit them to carry on their usual work in society while at the same time acquiring skills that are more needed in defense than normally, such as service in health, nutrition, home nursing, business skills and recreation."

The Subcommittee on Pre-service Education has already published two pamphlets entitled *Is Your Number Up?* and *Attention! To Your Health.* It is proposed to publish a third pamphlet which will deal with educational opportunities for the men in the armed forces.

The Subcommittee on Teaching Materials has prepared six pamphlets on defense problems intended for high-school teachers and students. Similar pamphlets are being prepared for college teachers and students. Consideration is being given to a special series which will deal with the four fundamentals of public morale—health, education, recreation, and welfare.

The Subcommittee on Vocational Training has had a series of conferences with representatives of Government agencies. It has drawn up eleven recommendations concerning "the relationship of state and local defense agencies and federal training agencies."

It is pointed out that agencies should not be developed through Federal funds that will duplicate existing educational agencies. The committee suggests that the "existing regular educational agencies be adjusted, expanded and utilized to meet the needs of the times."

The Subcommittee on Latin-American Educational Activities was organized to assist the office of the Coordinator of Inter-American Affairs. The committee is preparing 250 exhibits, which include books, maps, photographs, dioramas, and other teaching materials for the use of schools and colleges.

A most significant contribution from the university world is the work of the National Defense Research Committee. This committee is an official arm of the Federal Government. It is made up of America's foremost scientists under the chairmanship of President James B. Conant of Harvard University, who spends half of his time in Washington. This committee has been created as an executive agency to utilize the existing laboratory facilities, industrial as well as collegiate, for speeding up scientific research on the instrumentalities of war. The committee has subdivisions considering various branches—chemistry, physics, and others. The Army and Navy have liaison officers attached to the various subcommittees, thus the scientists are kept in close touch with the armed forces. Obviously this research pertaining to modern warfare is of secret nature and only those scientists are accepted who have the approval of the Army and Navy.

Fortunately many of the problems under investigation can be distributed to scientists in their own universities, thus permitting them to carry on their normal college functions as far as possible. In a few cases, as at the Radiation Laboratory of the Massachusetts Institute of Technology, a large group of physicists has been assembled to carry on work of great importance which is highly confidential.

It is interesting to note that in World War II the scientific investigations are carried on more by the physicists than by the chemists, as was the case in World War I. According to a recent report from

the National Defense Research Committee "probably 75 per cent of the more distinguished research physicists of the country (those starred in *American Men of Science*) who are available are now at work on war problems." Doubtless, within a few months the remaining 25 per cent will be likewise involved. Already some one thousand scientists, who range from young Ph.D. graduates to senior professors, are working in the colleges and universities under the direction of the committee. Some seven hundred scientists are also at work for the committee in industrial plants. The committee reports that during the past year two hundred and seventy contracts have been placed with forty-seven different universities and technical colleges, and that one hundred fifty-three contracts have been allocated to thirty-nine industrial firms. Ten million dollars have been appropriated for these contracts.

Two large grants have been made by Congress through the United States Office of Education for offering through the colleges "refresher" and other courses in engineering. Thousands of men have enrolled in these courses in hundreds of colleges. The amount appropriated for the college year 1941–1942 was $116,122,000. For the preceding year a somewhat smaller sum was voted by the Congress.

At the request of the Federal Government a committee has been set up under the chairmanship of President Leonard Carmichael of Tufts College for the compilation of a roster of persons who would be available and valuable for all types of defense agencies. This roster includes experts not only in the sciences but in other fields. Already thousands of names have been filed and tabulated.

Recently a Commission on Colleges and Civilian Defense has been organized as an integral part of the Office of Civilian Defense. The writer has been chosen as chairman of this commission and Francis J. Brown as its executive secretary. The commission will be concerned primarily with the organization of college and university defense units, which will work with State and county units for

the training of students in the areas of protection from air raids, fires, and in first-aid and nursing courses.

Individual colleges and universities have established defense committees. Some of these local committees have been very active.

This war, like all others, must come to an end sooner or later. The colleges must be alert as to the crisis they will face in a world neoconstruction. The Association of American Colleges, in realization of the problems its members will face and of the responsibilities they have in educating a leadership for a new world, has appointed a strong commission to study and make recommendations on the postwar problems of the colleges.

The liberal-arts college is a priceless American institution. Millions of dollars have been spent for its support by States and municipalities. Individuals have given more liberally to its support than to any other charitable object, including hospitals and churches. It has received millions also through wills.

In the present war crisis and the more serious crisis to be faced in the postwar world, the American college must not be allowed to suffer through thoughtlessness on the part of those in high position responsible for formulation of national policies. The reservoir of educated leadership must be maintained for needs that will become more and more imperative as the war emergency unfolds. It will be even more imperative for the solution of postwar problems, which will be literally stupendous.

The reduction of the minimum age limit for the draft to twenty will create a serious problem for the colleges unless real understanding is evinced by those in authority. More than fifty per cent of the men in the junior class and practically all seniors are within the selective-service age. General Hershey has given instructions to the sixty-five hundred draft boards throughout the nation to use their best judgment in deferring from induction students certified as capable and in good standing who are preparing to be engineers, physicians, dentists, pharmacists, scientists in the fields of physics,

chemistry, geology, biology, etc. These instructions were sent out after careful survey had been made through the United States Office of Production Management in coöperation with the National Academy of Science and the Subcommittee on Military Affairs of the serious shortage of men in these particular fields. Studies are also being made to determine whether students in other areas should be included in the instructions for deferment of induction. In the total allocation of man power the retention of men in training for essential occupations is vital to the national safety.

In an earnest plea for the saving of the colleges during the war crisis, I am not thinking of preserving them for the benefit of administrators and professors, but for the absolute value they have for the maintenance of national safety, welfare, and interest. We must have a supply of educated leaders. There will neither be progress nor prosperity if we fail at this point. College professors have been able to live all these years on mediocre salaries. In periods of depression they have tightened their belts and survived salary cuts. The professors can eke out a living, but the nation will die without its colleges.

A glance at the record of the colleges during past wars which caused great dramatic upheavals in our national life will be helpful in predicting what we may expect. During the American Revolution, the famous College of Philadelphia, for whose beginnings Benjamin Franklin was largely responsible, practically went out of existence in 1779. Its survival was insured by a grant from the colonial government, which was made with the understanding that the college be continued as the University of Pennsylvania. In the war between the States, most of the Southern colleges were closed. Likewise, the colleges in the North suffered tremendously. For instance, there was but one senior in the class of 1864 at the University of Wisconsin. In World War I, many colleges were saved from extinction by the educational statesmanship of President Woodrow

Wilson and Secretary of War Newton D. Baker, who authorized the establishment of Students' Army Training Corps in all of the colleges that enrolled men.

The small, struggling colonial colleges educated those brilliant young men who were largely responsible for writing those two immortal documents, the Declaration of Independence and the Constitution of the United States. Thomas Jefferson was an alumnus of William and Mary, James Madison of Princeton, and Alexander Hamilton of King's College (now Columbia University).

For the duration of the emergency, the facilities of the colleges will be strained to the utmost in many directions. There is already a marked scarcity of engineers, physicians, dentists, and scientists of various kinds. The colleges must not under pressure reduce their standards for educating men in these professions. As previously indicated, the Selective Service authorities have taken cognizance of this situation.

At the conference of college administrators and Government officials held in Washington on July 30–31, a high officer in the air arm of the War Department stated that there was need of one thousand new pilots per week. With the outbreak of war the minimum of two years of training for men accepted for this service has been dropped but this officer and other colleagues of his claim that the courses given in the average liberal-arts college are just what are needed, with some emphasis on English and a requirement of the minimum in mathematics.

In the late summer of 1941 President Roosevelt sent a message to the annual meeting of the American College Publicity Association in which he emphasized the continuous need of "men and women with college training." "Later we shall need men and women of broad understanding and special aptitudes to serve as leaders of the generation which must manage the post-war world."

For the solutions of the ever pressing economic, social, and politi-

cal problems that arise during the emergency, and will arise thereafter, we must look to the colleges as a first source of supply, as well as for the training of scientists and technicians.

For the new world that will arise after the peace concluding World War II there will be needed many more educated young men to organize a world federation of nations, a world court, a world police, and a social order that will preclude the volcanic upheavals we are now suffering under the totalitarian onslaught.

It has been suggested by some leaders among independent colleges that the Government give subsidies in the present crisis. Such a policy would be justifiable if assurance could be given that Government direction would not be involved. It is to be feared, however, that Government control will follow Government support. Of course, there could be no distrust whatever with regard to a grant by the Federal Government to any one or several universities for specific projects, like scientific research.

Our magnificent dual system of higher education has been the backbone of the great American democracy. The independent and the State-supported colleges are needed to supplement and complement each other in their aims to educate democracy's leaders. The democratic way of life cannot survive the waves of totalitarianism that have begun to lap at our shores and to threaten our very existence if the twofold system, which is the genius of our educational philosophy, is unbalanced by the imposition of State supervision.

Guy E. Snavely was president of the Association of American Colleges in 1929–1930, and has been executive director since 1937. He served on the executive committee of the American Council on Education for six years, and was president of the Association of Urban Universities in 1936–1937. He is a contributor to philosophical and educational journals.

ADULT EDUCATION FOR CIVILIAN DEFENSE

ONE PROGRAM IN ACTION

ARTHUR JESS WILSON

As this article was being written the Congress of the United States declared the existence of a state of war with the Imperial Government of Japan. Before this Congressional action the program for civilian defense was an anticipatory measure for precaution. Today it is an integral part of the strategy of total war.

Under our President 34 separate agencies, divisions, or offices are concerned with one or more defense problems, and an unofficial enumeration shows a total of more than 800,000 employees at work in Washington or in the field. The next few weeks will undoubtedly bring many and rapid changes in internal organization of these agencies. War will make some of less importance, others will become vital to our very safety as individuals and as a nation.

The Office of Civilian Defense with Mayor F. H. La Guardia as director, criticized by many, is now recognized to be one of the most essential of these Government agencies. Still with but a comparatively small central staff it is charged with planning and carrying out civilian defense programs. Civilian protection, as defined by the United States Office of Civilian Defense,[1] has two important parts: the combat or emergency phase and the community or long-range phase. The former goes into action in case of actual attack, but requires organization and training beforehand; the latter operates continuously and progressively.

Civilian defense rests upon community action. The President emphasized that point at the origin of the defense effort. This description of the defense organization in a city of 142,000 people, in many respects a typical eastern city, is presented as an illustration of concerted community action.

[1] *Civilian Protection*, Washington, D. C., October 1941.

Our City Council of Defense was officially established by the Mayor on May 28, 1941. The Council membership appointed on that day totaled some 240 members including approximately sixty women. Prior to the establishment of the official council there was a group of private citizens who had gathered together on several occasions at City Hall and had undertaken certain preliminary steps to protect the civilians of our city in case of war emergency. Acting under the powers granted him by the Mayor, the chairman proceeded to form an Executive Committee which now has a membership of 27, including the personal representative of the city manager, the fire and police chiefs, the executive heads of several of the city's largest industries, the chairman of the War Veterans' Central Committee, and other representative citizens including 5 women.

The Executive Committee meets regularly every first and third Tuesday of each month and formulates general policies. It is anticipated that this Executive Committee will be the medium through which most of the work of the Council will be organized rather than the full membership of the Council which is over 200.

The reasons for having such a large Council membership is that it was possible for the Mayor to appoint members of every race and creed and also to include representatives from every territorial section of the city. The Council membership includes the leaders of practically all of the service, welfare, and fraternal organizations of the city. By virtue of their appointment it is possible for the officers of the Council to call upon any of these leaders to do work for which they are particularly fitted and there is an implied obligation to accept such responsibilities.

The Council is organized according to the plan promulgated by the Second Corps Area of the Army. This plan provides for four main working committees. They are: (1) a committee of engineers, whose division is called "Division on Protection of Utilities and Industrial Plants." There are three subcommittees under this division. (2) A committee of civilians working with the police, fire, and

health authorities whose division is called "Division on Protection of Civilian Population." There are five subcommittees under this division. (3) A committee of educators, people trained in advertising, and publishers whose division is known as "Division for the Education and Training of the General Public." There are nine subcommittees under this division. (4) A committee of people to obtain personnel for civilian defense, whose division is known as "Division on Defense Personnel—Enrollment, Classification and Assignment." There are seven subcommittees under this division, each of which has a definite type of worker to enroll, such as one committee for auxiliary policemen, another for auxiliary firemen, and so on. These four divisions are now meeting regularly and formulating plans to carry out their respective functions.

Up to the present time the Defense Council has produced very material accomplishments within the city. It has (1) organized and equipped office headquarters at the City Health Center, now staffed by four full-time women assisted by part-time WPA and NYA workers. (2) It has taken inventory of metalworking equipment facilities of industries in the city and has sent copies to State officials and the Office of Production Management.[2] (3) It has organized and conducted an aluminum recovery drive in which 8½ tons of aluminum were collected. (4) It has assisted the drive for funds for the United Service Organization by direct participation of officers and other Defense Council members. (5) It has publicized and promoted the attendance of the city manufacturers at defense clinics held in Albany in July and in New York City in August. (6) It has established an auxiliary fire-fighting force and enrolled approximately 750 men. Two training classes of approximately sixty-five men each have completed fire-fighting training and a third class is

[2] The importance of this measure in all cities cannot be overemphasized for, as the pamphlet on Civil Defense issued by the Civil Defense of the Headquarters of the Second Corps Area states, "if the threat of an attack . . . can produce a cessation of any portion of the Nation's productive agencies, then this hostile threat is as valuable to the enemy as an actual successful invasion or a successful end to a campaign."

now completing instruction. These men are taking the standard Red Cross first-aid course after completing their fire training. The balance of the men enrolled will be trained class by class in the order in which they enrolled. The fire-training courses are given at Fire Headquarters and the men actually handle fire apparatus. (7) The Personnel Division has enrolled the above auxiliary firemen and, in addition, 2,000 air wardens and 900 auxiliary policemen.[3] (8) Consideration is being given to the key points of the city's utility system and industrial facilities which are vulnerable to sabotage and other means of attack. Each of these points is being studied and plans are developing to afford adequate protection. (9) It has promoted a survey of the existing fire-fighting equipment with respect to its adequacies in peacetime and under wartime conditions. The extra equipment required for wartime conditions has been listed and reported to the proper State and Federal authorities. (10) It has undertaken the organization of local amateur radio operators to work for and with the fire and police departments. (11) It has suggested to Governor Lehman that draft boards be requested to furnish local defense councils with the names of deferred draftees so that they might be contacted for volunteer civilian defense duties. (12) It has taken up with Mayor La Guardia and Governor Lehman the problem of insurance protection for the fire, police, and air-warden auxiliaries in case of accident while discharging their duties.

These are the achievements that have been completely organized and placed in action. At its present stage of development, the city Defense Council is working on current projects that will extend and perfect the efficiency of the civilian defense program. It is (1) arranging for its own air-warden training courses. (2) The Council arranging with police officials for a police auxiliary training course. (3) The City Planning Consultant is preparing master maps of the city showing all pertinent information which should be available in

[3] The Defense Council set as a minimum objective: 1,500 air wardens, 500 police auxiliary, and 900 fire auxiliary.

case of a local war emergency. Individual maps will be supplied to each air-warden post showing: fire station and alarm boxes, police station and call boxes, police-car patrol areas, water mains, branches and control valves, location of each drugstore, location of home of each physician, hospitals, schools, fire hydrants, etc. (4) A Committee on Schools is meeting with school principals to plan for the protection of all school children should an emergency occur during school hours. This committee also will develop plans to further the education of children along defense lines. (5) A Committee on Emergency Medical and Surgical Services is organizing emergency medical units which consist of an ambulance, or a station wagon or truck converted for ambulance duty, two doctors, two nurses, and two orderlies. When plans are completed there will be approximately 11 such units in the city. (6) Preliminary work is being done to organize rescue squads. These squads are needed to extricate people who might be trapped in demolished buildings. The squads consist of men trained in building construction such as employees of the Public Works Department, and men skilled in emergency first aid. Six men in the city are taking an intensive course under the direction of an instructor from the United States Bureau of Mines in order to qualify them as local instructors for this work. (7) A Speakers' Bureau is being organized for the service of the Defense Council throughout the national emergency. (9) The city is being surveyed to learn where air-raid sirens should be installed if and when such warning sirens are required. The city engineer is obtaining information as to equipment and cost.

A vital question arises in the nature of citizen participation. Civilian defense assumes voluntary action. There immediately arise two problems. The first problem is psychological: How sensitive to the gravity of the hour is the adult population? The motive that inspires voluntary action on the part of an individual must be strong. This principle of human conduct was made apparent by our declaration of a state of war. There has been a sudden increase in appli-

cations for defense services. The second problem is practical: How can defense information be brought to the attention of the citizen? The community councils must solve this second problem.

The Speakers' Bureau seems to be the most efficient channel for reaching the average citizen. During Civilian Defense Week 18 capable speakers addressed 38 organizations including an audience of 1,950 people. Since Civilian Defense Week 27 speakers have addressed 66 organizations including an audience of 3,350 people. The speakers are derived from civic organizations and from certain industries. Speakers were solicited by means of 145 letters going to industries and 298 letters going to civic organizations.

Every reservoir of publicity was tapped. Appeals for volunteers were made by means of the radio, newspapers, demonstrations, parades, lectures, and a Personal Contact Bureau. However, nothing has produced better results than group speakers appealing to organized groups within the city. The Personal Contact Bureau has proved extremely effective.

Attendance increases by means of those taking volunteer courses. Individuals tend to encourage their friends to join them. What success has all such effort had? With an adult population of approximately 60,000 people,[4] the Defense Council Office states that approximately 6,000 adults of the city have volunteered their services to defense. This same office informs me that approximately 1,750 people are serving in voluntary administrative positions, thus bringing the voluntary figure to 7,750 out of a possible 60,000.[5] No data are available to determine the extent to which this proportion is adequate to meet potential dangers of air attack.

Patient consideration is given the problem of fitting the individual to the function for which he is most naturally adapted. The Office of Civilian Defense in Washington has stated: "The people themselves must be studied carefully as to temperament and ability

[4] This figure is based on the number of possible voters in the last election.

[5] Less than 2,000 adults volunteered up to a month before the declaration of war. The great bulk of adults volunteered during the first week following the declaration of war.

to assist in emergency."[6] The United States Office of Civilian Defense lists 24 ways in which civilians might serve in a voluntary capacity.[7] Applicants state their preferences and are interviewed. Then they are given a course of instruction, following which they take a written examination to determine their fitness for the selected service.

All defense efforts are coördinated by the Civilian Defense Volunteer Office. The war veterans handle all personal references. The city uses an application blank similar to the one suggested by the national office.[8] Every enrollment blank must contain three reliable references which are subject to investigation.

Every community is expected to bear the cost of its own organization. The Common Council appropriated $5,000 for the needs of the Defense Council for the year 1941 and another $5,000 for the year 1942.[9] In the case of financial emergency, by special act of the legislature, the city is authorized to sell short-term bonds. When, recently, money was not forthcoming, the chairman of the City Defense Council publicly attacked the city manager for maintaining an indifferent attitude toward a vital problem. The local newspaper gave the item front-page publicity and action was immediately secured on the part of the city officials.

Special attention has been given the status of children. The office of the Superintendent of Schools sent 23,000 letters including all parents and guardians within the city. Parents and teachers were instructed to prepare the children for sudden emergency. Metal tags were given to each child for identification. Each child was assigned to a home if his own was too great a distance from his school.

The Red Cross, as one of the large organizations working in co-

[6] *A Handbook for Air Raid Wardens,* Washington, D. C.

[7] *See* bulletin, *Local Organization for Civilian Protection.*

[8] The Office of Civilian Defense was required to certify to the President by August 15, 1941, that cities and other political subdivisions had adopted an ordinance or set up under proper authority a civilian defense organization. The plan may be modified.

[9] Since the declaration of war, the Common Council appropriated an additional $45,000 for civilian defense for 1942.

ördination with the defense office, has taken upon itself some of the greatest burdens of the defense program. The Red Cross, local chapter, has instituted enrollment for a motor corps, hospital units, ambulance units, emergency medical and surgical services, nutritional courses, etc.

The direct educational problem in training adults for civilian defense has been solved with considerable success. The information given is practical. It is decisive. It is presented with the full recognition of the seriousness of the hour. The adults are eager to learn and where there is a strong motive there is accomplishment. Adults are impressed with the seriousness of their duties. Instructions read: "As an air raid warden you have specific duties to perform. You must study them, review them, practice them over and over so that you may carry them out in an air raid without failure or error. You must know your Sector as intimately as others know their homes."

There is the problem of jobs requiring technical knowledge. Publication No. 12 of the Office of Civilian Defense on Municipal Signaling including specifications for emergency electrical Power Equipment, prepared by the Defense Communications Board, contains 24 pages of technical instructions. There is a shortage of such services and yet the bulletin states that "damage to the communication system means that sabotage elsewhere becomes easier and is more likely to be effective." The educational enigma is apparent when we stop to think that by the end of 1942 there must be 400,000 men on this one job alone, 70 per cent of them skilled or semiskilled. It constitutes one of the most vast mobilizations of technical and industrial resources the world has ever witnessed.

But for the majority of citizens who come to be educated for a crisis, we can say: "Here is what a bomb looks like. . . . You don't have to worry how it's made. . . . Pick up a sandbag. . . . The bomb may explode. . . . Hold the bag in front of you as a shield. . . . Drop it in front of you on top of the bomb . . . . In two minutes it will smother the bomb. . . ."

Mrs. Roosevelt, as Assistant Director of the national Office of Civilian Defense, outlined the broad objectives of a volunteer program:[10] (1) to give every person, man, woman, and child, wishing to volunteer their services in the interests of civilian defense, an opportunity to train for the work they wish to do; (2) to provide opportunities to participate in some type of work that will be of benefit to their community—now; (3) to prepare citizens to meet any emergency call that may come in the future.

The protection of civilian population and of the physical facilities of production including the vital lines of transportation and communication is as vital to military success as the training of combat troops. A task so gigantic is impossible unless it depends upon the cohesive effort of every American community.

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[10] *New York Herald Tribune*, September 30, 1941.

EDUCATION FAILS IN THE CRISIS[1]

A. W. FORBES

It may be answered that every other agency failed in this crisis, and that would not be far from the truth. Industry was unprepared to meet the demands of the defense program, with reasonable speed, and the Government was unprepared to tell industry promptly what it wanted. Behind both, there was one thing in common, men were unprepared, particularly young men prepared to advance quickly to positions of responsibility were unavailable. That was the fault of education, using the term in its broadest meaning, including school instruction, but also education in industry and wherever it is needed to develop competence for meeting emergencies.

Conditions in industry at the start of the defense program were bad, and by that I do not mean only that business was still in a depression. Business was unprepared to expand to meet the needs. A business in a healthy condition must contain experienced men in all departments, men who can keep the regular work going, and also a reasonable number of young men advancing through each line of work toward higher opportunities. With such a condition, expansion is easy. Advancements are quickly made, and beginners, men competent in narrow lines, and specialists can be added to make a balanced organization.

At the beginning of the defense program this was far from the actual case. There were competent youth in industry, but not distributed as they should have been. The tendency to flock together had been very marked. Superior youth entered some large offices in large numbers, and these offices became for them blind alleys. That was not because there was no route upward from these offices, but because there was so much competition in these routes upward. The

[1] This article and the one following by Messrs. Keller and Pyle are presented together for contrast—one of the need, the other of education's attempt to meet this need.—*Editor*

surplus youth were kept on routine tasks, where they lost their capacity for eventual promotion.

At the same time there were large fields in industry where few competent youth entered. In these places men were advanced beyond their proper place, trying to do work that required a higher mental equipment, and as a result doing the work in an inferior manner—just holding the jobs because competent men were not available. Promotion (or upgrading, to use the modern word) was almost impossible, for it had already been done to the maximum.

Why should there have been these two conditions side by side? Should a better distribution of youth in industry have been a responsibility of education? Certainly it should have been a responsibility of vocational guidance, which is generally associated with education. It appears that vocational guidance may have increased this unbalance by directing more boys into the more familiar fields, while neglecting the less common but greater needs. It may be that some of the shortages of youth may have been due to the prejudices of employers, or to the fact that these employers did not know how to use the school products, for in general the surpluses seem to have been most frequent in those positions best prepared for by schools, while the shortages were in places where apprenticeship was the usually accepted form of entrance.

Looking at the situation from the point of view of the defense industries, these naturally group themselves into two distinct types, contrasted but overlapping, the mass-production industries, and those engaged in tooling up the mass-production industries. The mass-production industries as a general thing seem to have been well supplied with personnel. Though of larger units, they are of simpler organization, for, after making one article, the next is a repetition of the last. Most employees are doing the same thing today, tomorrow, or next year. The other extreme is the building of the equipment used in mass production, commonly called tooling up. This was the bottleneck of defense production. This was so

slow that it should have been considered a national scandal. This was in a large part done by the thousands of smaller companies who lacked the available supply of competent youth for one reason or another.

I am at the head of one of these smaller companies, so small that we were ignored by those who were trying to speed defense; but to show how a small plant may control the large, I will mention that in 1941 we made essential equipment for three United States Navy yards, three United States Army arsenals, two United States destroyers, six aircraft plants, the Canadian Government, the British Purchasing Commission, and 28 of the largest American industrial companies, all with high priority ratings. We were slow in making deliveries, much slower than we should have been had we received coöperation from educational leaders, but these big and important organizations did not place their orders elsewhere because of our delays. They waited.

We quickly increased our employees 150 per cent, and then, though still with an output considerably less than one-shift capacity, we found that we could not handle more men of the kinds available. Existing employees were all trying to do work above their proper level, resulting in delays of output. More and better supervision was needed, both to increase the output of the present employees, and to provide for additional new men. But men for this supervision could not be found. In the past education failed to prepare youth for this work. It was obvious that none of the school courses gave the needed training, or there would not be the present shortage. Apprenticeship was the only solution, but not of ordinary boys. The apprenticeship must be of boys who have the character, ambition, and ability to take responsible charge of others in a small way, while preparing for leadership on a larger scale later.

In the meantime the schools were heard from. We were offered courses for our employees, but these courses were for instruction in those subjects where it is easiest to find the knowledge already. The

Government through the NYA and trade-school defense courses offered us graduates of short courses, to provide us with employees for the work where we had never found a shortage of men. Placement officers from these schools called in the effort to place more of these graduates, and eventually (I have been informed) they placed most of them, though whether in places where the school courses were of value I do not know. I did not find any effort on the part of any school to find the bottlenecks and to direct youth and its training toward filling these needs.

In general, the schools before the defense program had supplied an unbalanced supply of candidates to industry, overcrowding certain fields and leaving shortages in others. With the approach of defense needs, they saw an increased chance to place more of the same type, and so added to the same kind of training which they had given before. They placed most of these in defense work, but, in doing so, increased the unbalance.

With the continuance of those who have started on these courses I have no complaint, for there will be room for most of them, and a change may have a disturbing effect. But how about the youth now starting these courses? They are being withdrawn from their opportunity to help the defense program now, while preparing for a chance to serve as leaders in industry in the crisis which must follow the end of the defense program. They are being withdrawn now, and offered the prospect of being dropped on a saturated labor market after the end of the defense program.

TRAINING FOR WAR INDUSTRY THROUGH THE SCHOOLS

J. O. KELLER AND H. G. PYLE

History has an interesting way of repeating itself. A member of the staff of one of our engineering colleges commenting on the situation in 1918 wrote, "This war in magnitude, intensity, and destructiveness, exceeds every other calamity. This is not a war of brute strength, but of engineering devices. To invent and successfully utilize engineering devices, more and more engineers are needed. The government of the United States and many of the larger industries connected directly or indirectly with the war are calling for young engineers qualified to meet modern needs."[1] Much the same situation again exists. The defense emergency has caught our industrial machine in a state of great disrepair. It would seem that each generation must learn anew the lessons of history.

THE PROBLEM

Our country approached this emergency after a long period of depression characterized in its depth by great unemployment with no higher value placed on skilled and trained artisans than on the dollar value of shares of ownership in our large corporations; with our productive plants in large part idle; with our Government even placing a premium on scarcity in various fields of production, notably agriculture; and with private industry having only a limited chance to function along the way toward greater employment and production. All of this was in the face of an extremely baffling economic situation. During these depression years, industry generally carried on no normal plant training programs. Each individual concern strove rather to retain on its payrolls its own skilled personnel if at all possible. Where necessary the vast pool of unemployed work-

[1] *Bulletin* of the Society for the Promotion of Engineering Education, vol. IX, no. 1.

ers was drawn upon as some few trained persons might be needed. Companies acted in very much of an individualized manner, each much concerned for its own self-interest.

In early 1940 it became apparent that the national defense effort would require large numbers of skilled and semiskilled men—engineers, trained mechanics, and industrial supervisors. To an extraordinary degree the success of our defense program would depend on our ability to meet industrial competition. A writer aptly recast the phrase, "armed to the teeth" into "armed to the brain"[2] as one more descriptively typical of our needs in the current conflict when ideas fight ideas in a new weapon of war—propaganda; when war is so largely on a mechanized basis; and when the enemy himself has adapted weapons of such devilish skill.

By the early months of 1940, large orders had been placed by the British Government with our industries, and it was evident that our own Government would soon begin to place large defense contracts. Industry was rapidly going through a "tooling-up" period, and it was clear that it would also have to go through a "training-up" period.

The initial demand soon exhausted the supply of certain types of workers, particularly those in the metal trades and in skills peculiar to armament production. Not for years had ordnance been produced in quantity, and the shipbuilding and machine-tool industries had long been inactive. Obviously the situation called for broad rapid shifts in occupational skills in the working population. At this juncture it was logical to turn to a training program that would convert large segments of the untrained labor reserve into workers with some skill and to return skill-rusty workers to skilled occupations.

Facilities available to meet this training need included 1,053 public trade schools with their billion-dollar capital investment, 35,000 teachers, and 23 years of experience in operation on Federal, State, and local levels. Also at hand were the engineering colleges, and the

[2] H. A. Overstreet, "Armed to the Brain," *Journal of Adult Education*, June 1941.

depression-born NYA and CCC organizations whose facilities it should be possible to transform rapidly for defense training purposes.

THE PROGRAM

At the request of the President of the United States, the Commissioner of Education presented recommendations[3] urging utilization of existing trade-school facilities and those of engineering colleges in a training program for national defense. A $15,000,000 appropriation had been made[4] on June 23 on representation by the United States Office of Education that the vocational schools had facilities available for carrying on a program in its initial stages during the summer of 1940. This program got under way immediately with students 18 to 60 years of age registering for courses in the machine-shop occupations, aviation, manufacturing, automobile service and repair, welding, electric service, sheet-metal drafting, foundry, radio service and repair, forge, ship and boat building. Vocational schools ordinarily closed for the summer remained open, many going on a 24-hour basis. By the end of August 100,000 persons had registered for these courses. One fourth of this number came from WPA rolls, the public welfare requiring that every effort be made to return these workers to private industry. Training courses in this summer program were from 200 to 400 hours in length and, in general, the program functioned under established standards and procedures.

But Federal funds now defrayed entire costs of instruction and supervision, in contrast normally to grants on a matching basis under the Smith-Hughes and George-Deen Acts; also, training programs were limited to occupations essential to the national defense. Originally the Advisory Commission to the Council of National Defense designated the following industries as ones in which the

[3] "Training for National Defense," through the use of existing public trade-school facilities; through the use of facilities requiring capital investment; through engineering schools. Report by J. W. Studebaker, May 29, 1940.

[4] Public Law No. 668, 76th Congress, 3d Session.

major portion of such occupations are found: aircraft—manufacturing, maintenance, and repair; machine tool; shipbuilding—manufacturing, maintenance, and repair; automotive—manufacturing, maintenance, and repair; electrical; forging; boiler and heavy steel plates; foundry; light manufacturing; sheet metal; woodworking; chemicals; ammunition; ordnance—light and heavy. Later the Office of Production Management in coöperation with the Office of Education approved a list of 550 specific occupations making possible a more exact coördination of training with labor needs.

This first defense training act provided for two types of programs: "Courses supplementary to employment in occupations essential to the national defense and pre-employment refresher courses for workers preparing for such occupations selected from public employment office registers. . . ." Thus the legislation was aimed directly to cure conditions growing out of the depression. Preëmployment refresher courses of 6 to 8 hours per day for from 6 to 12 weeks, as the term implies, were designed to rehabilitate and to refresh in skills grown "rusty"; supplementary courses, with classes meeting 2 to 4 hours per night, 2 to 3 times per week, were planned to "upgrade" by extending skills and knowledge in essential occupations.

As the fall of 1940 approached, provision was made by Congress for continuation of the defense training program on a broader basis. On October 9, an act[5] was passed carrying an appropriation of $26,000,000 to the vocational schools for continuance of their program until June 30, 1941, plus $8,000,000 for machines and other shop equipment. At the same time $9,000,000 was also appropriated to the United States Office of Education for "the cost of short engineering courses of college grade, provided by engineering schools ... which plans shall be for courses designed to meet the shortage of engineers with specialized training in fields essential to the national defense." Furthermore, $7,500,000 was provided for instruction of

[5] Public Act No. 812, 76th Congress, 3d Session.

National Youth Administration project employees and $10,000,000 was made available for the training of out-of-school rural and non-rural youth and enrollees of the Civilian Conservation Corps.

DEVELOPMENT OF VOCATIONAL-SCHOOL PROGRAM

The program of the vocational schools continued under the Act approved in October. Machine shop, aviation services, and welding were the three major types of courses in which the large bulk of enrollments fell.[6]

As of June 30, 1941, the total number of enrollments since the beginning of the program was reported by the Office of Education to be: preëmployment refresher, 420,530, and supplementary 467,614. Approximately one half of those in the preëmployment refresher courses were referred by public employment offices and 145,000 of those registered for this type of course are known to have found employment as of June 30.

In June 1941, nearly two million more workers were employed in manufacturing industries than a year earlier—one of the largest net gains on record. Demands in the aircraft, metal-trade, and shipbuilding occupations have continued to be acute. Preëmployment refresher courses originally intended for refreshing those with "rusty" skills are gradually turning into courses for inexperienced youth. The number of men with refreshable skills is gradually being exhausted. All applicants must be selected from public employment office rolls. Obviously, it is becoming necessary to develop secondary labor reserves.

Possibilities for such a reserve are inherent in the out-of-school youth and NYA training programs.

The United States Commissioner of Education and the administrative heads of the NYA and the CCC evolved working arrangements[7] under which training activities of these agencies were

[6] National Defense Vocational Training Program. Report as of June 30, 1941, mimeographed.
[7] "Administrative Procedures Governing Conduct of National Defense Training Programs of the Federal Security Agency," signed June 24, 1941.

established under the immediate supervision of local public-school organizations responsible to their State boards for vocational education and to the United States Office of Education.

The CCC has established specific basic defense training objectives that will contribute more directly to national defense. Thus, effort is made to develop in the men occupational skills of direct value in military service or private industry. This training supplements the work experience of these enrollees who may be excused from work for five hours each week to participate in these courses. This CCC training program by the vocational schools is a part of the out-of-school rural and nonrural youth section of P. L. 812, and the objective of this program is to provide members of this group who have some skill in ordinary mechanical practices with training that will equip them to assist in fundamental defense operations. Enrollments in the out-of-school rural and nonrural youth program to June 1941 totaled 254,511.

Courses made available included those in operation, care, and repair of trucks, tractors, and automobiles; metalwork including welding, drilling, shaping, and repair; woodworking; and operation, care, and repair of electrical equipment including radio. Such classes are taught by building contractors, carpenters, mill foremen, local mechanics, garage foremen, and others in the semiskilled occupations. Courses are given in private woodworking, machine and electrical shops, and in garages. Such training should not only aid in defense training but be socially useful.

Many well-equipped shops of the NYA are also utilized for the development of skills in occupations. The primary purpose of the NYA vocational-education defense program is to develop initial skill through work experience and related organized shop training so as to prepare for the production lines of defense industries. The NYA has jurisdiction over the productive work experience. The public vocational schools have jurisdiction over education through organized shop training and instruction in subject matter specifi-

cally related to the occupation in which the trainee will be most likely employed in defense industry. Enrollments in the NYA program under P. L. 812 to June 1941 totaled 285,541.

Other labor reserve possibilities include women workers for jobs traditionally filled by men. Racial restrictions may shortly be relaxed to a greater extent also by employers.

The supplementary training courses have been a boon to employers who wish to upgrade workers. This training is directed primarily toward teaching employed workers additional skills which will qualify them for higher jobs. They are initiated at the request of an employer or trade union.

DEVELOPMENT OF COLLEGE PROGRAM

The part played in the defense program by the colleges represents a significant development in that it brought about a new relationship between the Federal Government and institutions of higher learning. Previous relationships had existed with the land-grant colleges. Now a relationship was set up with any individual engineering college,[8] operating under a charter exempting its educational property from taxation, which relation functioned directly rather than through a State department of public instruction or State board of vocational education.

In June 1940, the United States Office of Education had called leading engineering educators to Washington to discuss the contribution that engineering colleges could make. These persons conferred with the Army, Navy, National Defense Council, the Civil Service Commission, Department of Labor, and other divisions of the Government in order better to appraise training needs. They were told that the defense program to an extraordinary degree was dependent upon existence of more technical and supervisory talent;

[8] Much of the information contained in this section on engineering training is taken from mimeographed copies of reports and addresses of Deans Potter, Seaton, and Case who planned and who are directing the Engineering Defense Training Program for the Office of Education.

that they should maintain their normal programs intact; that they should at once plan short intensive courses "on the college level" giving special consideration to in-service training needs in communities in which the colleges were located; that in some instances it might be desirable for engineering colleges to offer vocational programs of "less than college grade." Studies of staff and equipment of engineering colleges were made.

The Office of Education in August definitely set up an Advisory Committee on Engineering Defense Training. Sample regional surveys made in order to determine needs in New York, Pennsylvania, California, and in Chicago revealed very serious shortages. Surveys by the Bureau of Labor Statistics of the Department of Labor were studied, needs of the Ordnance Department of the Army considered, estimates of needs made by the Labor Division of the Office of Production Management were reviewed. Technical branches of the armed forces manned by engineers were important and extensive; production of supplies and munitions of war had become since 1918 of a more varied and complex character; engineers were *key* men, needed in large numbers for efficient planning, production, operation, and management. Engineers must design, draw details, supervise construction and production, inspect and test, and carry on research and development.

It was, however, extremely difficult to determine even approximately the extent of the shortage of engineers. It was estimated that about 10 per cent of airplane workers occupy supervisory and technical positions for which some engineering training is to be desired. The Labor Division of the Office of Production Management estimated on June 4, 1941, that if from 5 to 10 per cent of the estimated additional workers needed in the major defense industries in the coming six months were to occupy supervisory and technical positions requiring engineering training, then 65,000 to 130,000 persons would have to be upgraded also for increased responsibilities. Engineering colleges would graduate in 1941 only about 12,000 men, of

whom perhaps a third or a half would enter the armed forces. It was found that the airplane industry of Long Island and northeastern New Jersey alone would need nearly one half of the output of the engineering colleges of the United States.

An organization of regional advisers was established, but initiative and control of the program were left to a very large degree in the hands of the individual colleges themselves, the Office of Education merely exercising administrative supervision and effecting any needed coördination. Courses offered are on the basis of demonstrated needs, with both employed and unemployed eligible for registration. Final selection is made by the institution concerned within specified standards for each course after the institution has submitted preliminary proposals and these proposals have been approved by the Office of Education. The Government reimburses colleges for all costs of special defense training courses and no tuition is charged.

Two general types of courses at the college level were offered: first, intensive full-time preëmployment courses designed to fit trainees not already employed, for defense industries or defense agencies of the Government. The second type were part-time in-service courses fitting persons to do their present jobs better and to accept greater responsibilities. In general, courses fell under five broad headings: fundamentals; subprofessional courses, including drawing; engineering design and similarly highly technical subjects; inspection and testing; and production. With almost no exception, courses in engineering defense training carry no college credit. Specialized training courses for officers, enlisted men, and civilian employees of the Army and Navy have been provided.

No one has any illusions that fully trained engineers can be produced in short courses of a few months. Persons with some engineering training, however, can be fitted for new and unfamiliar defense tasks. Those with a good general or scientific education can be trained to perform repetitive or semiroutine tasks usually per-

formed by engineers. High-school graduates after some industrial experience can become assistants to engineers, draftsmen, or minor inspectors or supervisors. The tracer can become a detailer, the detailer, a designer.

In some institutions, the engineering defense training program has been administered by the university extension service.[9] This has resulted in the program being taken more directly to the community or even to the factory where training is needed and of gearing that training to meet real needs and shortages and of giving a "practical" turn to the instruction.

June 30, 1941, found 144 out of an eligible 152 engineering institutions participating, and 118,740 persons had been trained under the program. On this date, information at hand seemed to show increasing needs in marine engineering and naval architecture; for workers with engineering training for the aircraft industries; and everywhere for mechanical and electrical engineers, and particularly for industrial supervisors. It is generally believed that courses should be planned to run from three to four months. Calls for training of Army and Navy personnel will probably increase. The program was broadened by approval of an Act[10] on July 1, 1941, to provide for the training not only of engineers but of chemists, physicists, and production supervisors as well by tax-exempt, degree-granting colleges and universities and not limited to engineering schools.

THE SCHOOLS IN WORLD WAR I

It will be of interest to contrast the part played by the schools in training at the time of World War I with the job assigned to them now.

[9] At The Pennsylvania State College, where an exceptionally large program of some 120 centers was organized, this was done. Extension field representatives made preliminary door-to-door surveys in order to estimate more accurately industrial needs. Psychological tests were given all enrollees in order to determine their abilities and aptitudes; a placement service was provided to work closely with industry in facilitating the "up-grading" process; and extensive library reference services were made available.

[10] Public Law, No. 146, 77th Congress, 1st Session.

Less than two months before the entrance of the United States into the war in 1917, the Smith-Hughes Act, first of its kind, was approved by the President. The Act, however, had been pressed since 1908. Opinion seems to differ as to whether the war situation was wholly responsible for its passage at that time. The war, however, did have a direct effect in that it disclosed a military and industrial shortage of trained workers and without a doubt stimulated the States in their response to the coöperation offered by the newly formed Federal Board for Vocational Education. At the call of the War Department and of the United States Shipping Board, the new vocational agency undertook at once the establishment of a series of special war-training classes. It should be noted that the training was limited to the actual needs of the Army as indicated by the several departments.[11] None but physically fit conscripted men due for second and following drafts were admitted to classes in the original program. Classes were held in off hours, thus permitting the men to continue their occupations, and were tuition free.

The Federal Board, at the request of the War Department, as the result of practical studies and investigations, issued 200,000 copies of nine bulletins outlining courses of instruction in mechanical and technical lines. A bulletin was also issued on Emergency Training in Shipbuilding and was used by the Emergency Fleet Corporation in its training classes. Evening classes were held in maritime cities, where shipyards were located, for the purpose of upgrading shipyard employees. Greatest emphasis, however, was placed on short, intensive courses of training for Army occupations.

Few teachers were available in 1917, as well as few trade schools. Equipment was difficult to secure. Directors and supervisors were hard to find. Vestibule schools were set up by industries and Government war contracts permitted extra charge to pay for these schools. During the war, 61,151 men in 125 centers were trained as

[11] 1917 Report of Federal Board for Vocational Education, pp. 7–11.

radio or buzzer operators, auto mechanics, auto drivers, machinists, welders, sheet-metal workers, blacksmiths, draftsmen, etc.[12] This, however, represented training for Army occupations. Thirty thousand more men were trained in evening schools along lines supplementary to their daily employment in work done in essential war industries. It would appear, therefore, that in two months in early 1940 the schools trained as many men as they did earlier in seventeen months under wartime pressure.

In the case of the colleges, engineering schools pursued their academic routine undisturbed during the first year of the war.[13] But from then until the armistice, in a relatively brief period, war-training activity went on on a big scale. On April 10, 1918, 10,000 men were called to service by the War Department and placed in colleges for two months of intensive military and technical training. Colleges were somewhat reluctant to undertake this work because tradition led them to believe that little could be accomplished in so short a time and because the work required was unconventional and not generally considered to be of university grade. By June, however, 50,000 men were in training in 155 engineering schools. Before the signing of the armistice, 130,000 men had been so trained and contracts let for training 220,000 more.

On October 1, 1918, the Committee on Education and Special Training of the War Department took charge of engineering colleges, making them military schools and establishing the Student's Army Training Corps for male students 18 years of age and over. Short intensive courses fitting men for specific duties in the Army were then given. These courses were designed so as to consist of a combination of military drill to develop men as soldiers; shopwork to add practical skill; and humanistic study to give an understanding of why they were fighting. This was largely the story of the

[12] 1919 Report of Federal Board for Vocational Education, p. 73.
[13] C. R. Mann's Report in *Bulletin* of the Society for the Promotion of Engineering Education, vol. IX, no. 4.

contribution of the colleges. In the main their programs trained mechanics for the military forces.

CONCLUSION

This program of training for industry and defense through the schools has been rapidly organized but the impact of the program on the school system has not as yet been too severe. In no instance has the regular vocational school or engineering curriculum given way before defense training needs. The public vocational-school organization, with its facilities, grown quite extensive in the 23 years of its existence, has readily organized the job assigned to it.

Criticisms are heard of individual situations. It may be contended, for example, that persons in a certain community have been trained without regard to defense labor needs. When the vocational program was started the need for having a local advisory committee, on which both management and labor were represented, was stressed. This advisory committee is a feature of the normal program by which the vocational schools attempt to make their programs responsive to local needs and problems. Theoretically this arrangement should be effective. The problem of learning definitely, however, what and where actual labor shortages exist is a puzzling one. The Bureau of Labor Statistics and the Labor Division of OPM and other agencies attack the problem in national, regional, and State areas, and the United States Employment Service attempts further to spot local shortages. But these estimates appear to be not too good and the problem seems best approached by means of local studies. It is vitally important to the success of a vocational-training program that surveys of labor need be as *exact* and *revealing* as possible. It is for this reason that a closer relationship between the public employment services and the vocational schools has been urged and is being effected. Vocational schools must not bar progress by dictating what shall be taught.

There is the problem also of making the instruction "practical." This is a criticism frequently heard of any type of vocational instruction and it is the more difficult as the schools attempt to instruct in the skilled occupations. To offset this difficulty, the schools have employed large numbers of instructors from the skilled and semiskilled occupations in industry on a part-time basis. Classes have been held in plants and shops, classrooms have been equipped to simulate conditions in industry, and courses are adapted to meet the needs of specific companies. But the problem of a supply of adequately trained teachers and of satisfactory teaching materials is admittedly present. The greater success achieved by the "supplementary" and "upgrading" programs over the "pre-employment" type of courses undoubtedly stems from the reasons referred to here. It is for this reason also, probably, that the Federal Government has given strong support to the work-training programs of the CCC and NYA. In the "pre-employment" type of classes, as compared to the "supplementary" type, placement difficulties are frequently encountered in transferring an individual from one job classification to another totally unrelated job classification in a defense industry. Instruction given must have a ready application.

Greatest shortages exist, it has been shown,[14] in the skilled as compared to the semiskilled occupations. The answer here is probably *dilution* of the labor supply. England experienced our training needs to a greater degree, the impact of the shortage being even much heavier. We have studied her experience.[15] She was faced with the need for training women in large numbers, as well as men—a condition which we are rapidly approaching. After Dunkerque every piece of machinery in elementary and technical schools was needed and was used by students and teachers in actual production. Women were soon on many jobs ordinarily carried on by men, even

[14] "Man Meets Job," Public Affairs Pamphlet, no. 57, pp. 23.

[15] *See* R. W. Hambrook, "Education Aids British Defense in a Big Measure," *The New York Times*, July 27, 1941.

machining heavy gun forgings, operating delicate machine tools, or handling huge grinding machines. Women not running machines in factories acted as helpers to electricians, machinists, and others.

All of this has been made possible by the dilution of normally skilled jobs. In one instance, for example, a job usually done by a few skilled men was broken down into 72 units of relatively little skill. Somewhat the same procedure occurs in this country when the Training-Within-Industry division of OPM recommends that a job be analyzed into its component operations, each of which be taught to unskilled persons. Skilled operations could thus be carried on effectively in a remarkably short time when each employee need be instructed in only one or two operations. New employees are started on the simplest operations and all jobs requiring higher skills are filled by upgrading from below. New employees thus produce while they learn and training can be done right on the job where a specific job can best be learned. This principle must be followed here in order to provide skilled and semiskilled labor in our huge plant expansion.

It is believed that university extension participation in the training marks a significant advancement in recognition of this adult-education agency. Utilization of the extension service of colleges and universities makes it possible to organize courses of instruction "of college grade" in any industrial community. No part of the defense training program is more directly focused on actual needs, it can be fairly stated, than the EDT program. It is hoped that this section of the training program can set a standard of effectiveness that will demonstrate the possibility of all divisions of our colleges and universities giving community service in the manner in which the coöperative agricultural extension service now functions. Colleges and universities will have great opportunities for service in the postwar period through their extension services.

Criticism has also been heard of the lack of coördination in the defense training program; of the duplication of Government agencies attempting to ascertain labor shortages and needs; of the failure to take adequate steps for placement or for facilitating upgrading of trainees; of the trend on the part of the Federal Government to support more strongly separate, federally controlled and directed systems of vocational education such as the NYA, CCC, and WPA agencies. Leading schoolmen urge the traditional local control for programs of education. They view with increasing concern the gradual extension of the scope of new Federal agencies, which are encroaching on what has been considered to be the domain of public education.

The schools and colleges thus have a great responsibility placed on them. Whereas in World War I training was conducted chiefly by industry through "vestibule schools" in plants, thus far in the present emergency it has been largely a public function. The Division of Labor Supply of the Office of Production Management estimates that defense contracts already let require the addition of 3,000,000 workers before July 1942. Skilled workers will continue to shift from nondefense to war industries and retraining will continue to be of crucial significance. The defense training program has been expanded for the current year, 1941–1942.[10] While total effectiveness of the program is hard to measure, evidence is at hand to indicate that, though unspectacular, it is quietly effective. Job training is being given, not trade training. Industry itself has supplied well-qualified teachers.

Regrettable though it is that a war situation should be the one to rebuild in America a large working force of skilled craftsmen, yet at least the job is being done. The efficiency with which industrial production is stepped up depends on the skill of management and labor and on their coöperative effort. Finally, the best soldiers know

[10] Public Act, No. 146, 77th Congress, 1st Session.

what they are fighting for. It is to be hoped that provision may shortly be made for educational programs that will supplement those described herein by teaching industrial workers for what they too are fighting.

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Both persons are associated in the administration of a defense training program at the College which since January 1, 1941, has enrolled over 35,000 persons.

THE CLASSROOM—A DEFENSE UNIT[a]

PAUL R. HANNA

The American people are determined that they will defend themselves and their institutions against whatever dangers beset this nation. They are agreed that every effort will be made to defeat the philosophy of military force and the totalitarian state. Out of this crisis, they seek the universal establishment of four freedoms: freedom of speech, freedom of religion, freedom from want, and freedom from fear. The immediate war effort as well as the longer view demand the full coöperation of every citizen and every institution if we are to assure ourselves of victory. In the light of such an all-out endeavor, this article attempts to sketch a few suggestions for the part that the public-school classrooms might play.

Possibly the greatest contribution which the classrooms of America could make would be to establish and maintain a high order of morale among our citizens. Morale consists of two types: (a) "organic morale" which depends upon adequate food of proper quality, a balance of rest and exercise, sufficient clothing, sound health, and similar components for the strong, vigorous body; (b) morale is also a "group phenomenon" and is established through participation in goal determination and participation in activities that will achieve the ends set. In both these meanings of morale, the classroom has a significant contribution to make.

Most of us recognize the probabilities of serious disruption to normal community life due to the war. It is not our intention here to document these probabilities but rather to consider in what manner children and youth may be affected by them. Much as we feel confident that our farms and factories are producing vast quantities of food, it is clear from evidence abroad that involvement on our

[1] This article was prepared late in November just before Mr. Hanna left for Central America. He returned too late to revise this article, in view of the fact that we are now actually at war.—*Editor*

part over a period of several years would materially decrease our food surpluses, particularly those types of foods which are necessary for balanced nutrition. Consequently, the physical development of children and youth would be imperiled. In addition, the medical services of doctors, nurses, hospitals, and medical supplies would become scarcer as they are needed by the armed forces, and citizen groups, including children and youth, may suffer acutely from inadequacies of medical attention. Still further, children and youth will experience interrupted family life with the father away from home engaged in defense or military service, and the mother, likewise, devoting part of her time to defense activities outside the home. Such disruption of a large number of families will have its negative effect on the younger generation.

In yet another way the war may have devastating effects on child life. There is sharp division of opinion among military experts as to whether or not our border cities are subject to attack particularly by air forces. If this probability should become a reality, then obviously children would suffer in this country as they have in every continent of the world with the exception of North and South America. Equally dangerous to life and limb are the results of possible internal sabotage. While all of us hope and pray that invasion and sabotage will never strike the children of our land, yet we are at the moment so concerned about the probability that we are taking far-reaching measures to prevent that from ever happening.

The classrooms could do many things to counteract the negative effects of nutritional shortages, medical inadequacies, interruption of family life, and actual danger from military conflicts. Schools could provide the nutritional program which many individual families would be unable to maintain for their children. The school health program could be materially increased so that every child in this country, regardless of his home and community, could be given as much medical attention as would be permitted by the national emergency. It is difficult to see how the classroom could com-

pletely compensate for the negative effects on the child resulting from the interruptions of normal family life. But teachers, aware of children's needs for protection, stability, and security, could contribute a great deal to the building of morale. If the worst should happen and military attack or internal sabotage become our lot, then classroom teachers would be called upon to play a role similar to that which the teachers of England and the Scandinavian countries played in evacuating children from territories close to military objectives and in giving them complete supervision in new and safer surroundings.

But there are other ways in which America's classroom might be thought of as participating in the defense effort. If group morale does consist of participation in goal setting and in activities designed to achieve the goals, then the classroom contribution becomes concretely clear. For instance, in science classes the teacher and pupils might determine what materials have a strategic defense and military use. Metals must be conserved. How is it possible to provide substitutes for metals thereby keeping consumers equipped with essential goods and services and at the same time saving the metals for defense? A science class that sets for itself such a goal and then uses science to achieve substitutes will have made the pupil conscious not only of military goals, but of basic scientific principles. Science classes also could set for themselves a proper diet which would build bodily strength and vigor and serve to protect them against diseases. The class could then study and experiment with laboratory animals and construct appropriate nutritional diets. They might go further and try to improve the school lunch menus and the meals served in their own homes. Science classes might investigate the accidents in the schools, homes, and the community in general. By using the scientific attack they could undoubtedly discover ways in which safety could be increased and thus contribute directly to defense goals. Costly fires could be prevented by precautionary measures. Life could be safeguarded by better traffic

regulations. Further, the science classrooms could set out to inform themselves and their families as consumers how an increasing cost of living could be met by wiser consuming practices. Waste could be eliminated by study and experimentation of ways of utilizing the materials which in the ordinary home and community are discarded—paper, scrap metal, leftover food, discarded clothing, etc. In scores of ways concrete action could be taken by the science pupils.

In social studies and English classes somewhat different attack might be made. Neighborhoods and communities need to discuss constantly the war aims and plans of action. Classes in English and social studies might take as their objective the management of small discussion groups under the auspices of the Parent-Teacher Association. In these discussion groups the youth and grown-ups would share the study which the youth were making and the experience of the more mature adults. More formal presentations might be made to the public through forums and debates in which the presentation of facts would be made by the pupils. Further, the classrooms as "arsenals of facts" could supply the press, radio, and community discussion groups with such information as might be requested by these groups. The Volunteer Office of the Office of Civilian Defense might serve as the channel through which English and social-studies classes could make their research and conclusions available to the community. Geographic facts pertinent to military strategy are of great interest to the public. Historical facts which would throw light upon the current military and diplomatic activities could be organized into interesting newspaper articles, radio skits, and forum presentations. The economic factors of the war efforts and the economic bases for the reëstablishment of world trade following the war would make interesting and profitable studies for the pupils. Surveys of the living conditions of families who have moved into the community to participate in defense industries would make the pupils conscious of significant social changes going on about them,

and provide significant data for the officials of the Volunteer Office who are working to improve the conditions of these migrant families. A study of the changing consuming habits of the neighborhood would make a real contribution to parents and merchants. There are scores of studies which could be carried on in English and social-studies classrooms that would have a direct contribution to building morale of pupils and the community, and in addition would surely affect for the better the daily practices of many citizens.

The art classroom and studio has already become an important defense unit in many communities. Art classes have attempted to portray in poster and mural the four freedoms for which we are fighting. Art classes have successfully participated through posters and pamphlets in community-chest drives, in campaigns to improve family nutritional habits, in efforts to decrease the fatalities in automobile traffic, in dramatizing the costs of fires caused by carelessness, and in a variety of ways used art forms to make the community aware of defense goals and efforts. The art products which come out of the classrooms and studios have appeared in the local daily newspapers, have been exhibited in the windows of business establishments, and have been hung in schoolhouses and art museums for the public to view. In some instances the art classes have stepped outside classrooms and have attempted to improve the beauty and orderliness of the community environment by landscaping highways, planting flowers around public buildings, constructing artistic street signs and highway markers to speed up automotive traffic, and in many similar ways have left objective evidence of the important work which children and youth can do in creating a more harmonious environment which in turn positively affects morale.

School music has always been considered a vital link in times of national crisis. Nothing relieves tension and increases the feeling of well-being better than a good community sing. School bands, orchestras, choruses can give dynamic quality to community activities; even small and informal musical groupings have their part to play.

When the musical work in a school is closely correlated with the dramatic and artistic activities, stirring pageants may be the result; many schools have created unity within the community through such pageants as "Fight For Freedom" or "It's Fun to Be Free."

The contribution which home-economics classes can make to the war efforts are so obvious that they hardly need listing. With parents working outside the home more than in normal times and with the rising cost of living, the problems of home management become difficult. The home-economics teachers and their pupils might study and experiment and thus contribute to the more efficient running of family life. The problems of nutritious meals and of foods with high protective qualities could be studied. Problems of child care, of family amusement, and similar areas of home life could become the focal points of study in home-economics courses.

Agricultural classes and industrial-arts classes generally throughout the country have modified their content in order more directly to contribute to defense efforts. Agriculture classes have investigated the rebuilding of soils in order that the crops may contain the essential minerals, vitamins, and other food properties. These pupils have learned how to select better seed; plant, cultivate, and harvest crops more effectively; eliminate spoilage and wastage; and preserve crop surpluses. They are learning to protect farm tools and machinery from breakage, weathering, and wearing out through improper maintenance. Likewise, in industrial-arts shops, thousands of young people have been trained for immediate and efficient participation in defense industry.

The physical-education and recreation departments of schools have a magnificent opportunity to extend their programs to the neighborhood and community. On the playgrounds, young people can learn to take active leadership in sports and games and serve as lifesavers at swimming pools and beaches. They can coach the athletics of younger children and become proficient in storytelling. In school, in out-of-school clubs, and in informal groups, young peo-

ple can serve as leaders in crafts, drama, music, art, etc. This department can provide supervised play for children after school hours, week ends, and during vacations, and thus relieve parents who are engaged in war industries by ensuring supervised activities of their children.

School pupils in general have many challenges appropriate to their maturity. Children and young people can act as messengers, can serve in offices, can knit, sew, make surgical dressings, and assist in packing materials for shipment to military forces. Pupils can take an inventory of fruit and vegetable surpluses in the community, arrange for their collection, and for their preservation through canning, drying, smoking, etc. These preserved surpluses can be distributed through school lunches, community kitchens, etc., and young people can have a part in this program. The older youth can volunteer for service in the local Red Cross and assist in filing, typing, bookkeeping, report preparation, serving at reception desks, translating, etc.; they can provide clothing for refugees, hospital comfort articles, make books for the blind, and assist the motor-transport corps. School pupils can assist in making surveys of housing vacancies and serve as junior inspectors in investigating the vacancies in terms of standard score cards. Young people through their school classes and organizations can assist the service centers of the Volunteer Office by taking patients to clinics, collecting magazines and books, locating available buildings and equipment, etc. In the larger communities day nurseries are needed for the babies and young children of parents who are working in defense industries; the older school children can take a responsible part in assisting in these day nurseries. Schools can organize campaigns for family and neighborhood gardens: suggest a balanced garden, prepare instructions for planting, cultivating, harvesting, etc. The point has already been made concerning the canning and drying of surpluses from such gardens.

The teachers of this country have always risen in a national emer-

gency and given unstintingly of their time and energy in meeting a crisis. The period ahead will be no exception for already teachers are sensitive to the contribution the classroom must make to war efforts. Likewise, America's children and youth are eager to participate constructively in the defense and upbuilding of American communities. The public is anxious that every institution and particularly the schools be united in the task ahead of us. Imaginative and loyal teachers and administrators will organize their schoolwork in such ways that America's children and youth may channel an appropriate amount of their energies to the jobs that must be done. Such harnessing of youthful energy to the war tasks will not only hasten the achievement of the war goals, but as a concomitant our children and youth will develop morale and an appreciation of the American way of life which we are defending. It has been appropriately said that a major test of any civilization is the extent to which it offers its children and youth the adventure and satisfaction of participating in the age-old dream of building a better world.

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BOOK REVIEWS

The Literature of Adult Education, by RALPH A. BEALS and LEON BRODY. New York: American Association for Adult Education, 1941, 493 pages.

No serious student or leader in adult education can afford to dispense with this book. It covers the field like a blanket of snow and then uncovers it as warm penetrating sunlight dispels the blanket exposing the good earth and bearing its detail to those who would see. This matchless achievement was done by two men whose meticulous care in research and expression is universally acknowledged by all who know them.

In contrast to an annotated bibliography the book has been arranged by discussions and related reading lists. Obviously the authors understand the problems of adult education and the publications listed. The nature of adult education and of adults, individual and group instruction, the media of communication, the areas of adult-education programs, and special factors (a very important chapter) constitute more than half of the book. Then six chapters follow with a classified account of the various agencies, public and private, engaged in adult education.

The national aspects of adult education in the United States are clearly revealed in this book. The universal size of our continental area, the huge population of our country, the diversity in national backgrounds, cultural groups, languages, customs, occupations, religions, political allegiances, social and economic points of view, economic status—these illustrate the reasons for diversity in adult education. These show with brilliant clarity why no single formula or pattern has developed for systematic learning among adults. The simple fact of diversity dispels doubts regarding America's adult education and at the same time challenges us to constant alertness in meeting the complex problems imposed by this diversity.

The introduction to *The Literature of Adult Education* is a better descriptive review than any one else is likely to write. In this short statement I have deliberately attempted a general evaluation of the book rather than a description. The interested reader will require the book both for enlightenment and ready reference.

The Cultural Approach to History, by CAROLINE WARE, Editor. New York: Columbia University Press, 1940, 359 pages.

After reading this book one is duly impressed with the fact that the significance of social data is largely determined by the frame of reference from which the research person sees his world. History becomes about whatever the historian says it is. It is encouraging, however, to note that the historians are at long last beginning to realize this problem. No longer will it be possible for historians to claim objectivity beyond saying that "these facts have significance and are orderly when arranged in this relationship. When arranged otherwise they may make something else."

The book is a compilation of the papers presented at a symposium devoted to "the cultural approach to history" sponsored by the American Historical Association. It possesses a high degree of continuity, and is an impressive plea in itself for a thorough orientation to the cultural forces operating to obscure objectivity. It is well worth the time of the educator interested in methodology to peruse this volume.

A Teaching Guide for the Social Studies, by the ASSOCIATION OF SOCIAL STUDIES TEACHERS OF NEW YORK CITY. New York: College Entrance Book Company, 1941, 202 pages.

The producer of a guide, manual, or syllabus is always faced by a dilemma. His work, to be useful, must be practical and specific, and yet, with every illustration drawn from real situations, he increases the danger that the uncritical reader will lift his work bodily from the pages and put it into effect in totally different circumstances. Herein lies the value and danger of this *Guide*. The first four chapters, discursive in treatment, contain much gold for the teacher who will take and use it. The following 90 pages are devoted to lesson plans and constitute a great temptation to the classroom artisan to borrow *in toto*. In this reviewer's opinion, anything which contributes to teachers' thinking is per se valuable; that which obviates the necessity of creative thought is dangerous. This *Guide* will serve both functions.

Seven Lean Years, by T. J. WOOFTER, Jr., and ELLEN WINSTON. Chapel Hill: University of North Carolina Press, 1939, 176 pages.

Dr. Woofter has been coördinator of rural research of the Federal Emergency Relief and Works Progress Administrations since 1935 and was previously investigator for the President's Research Committee on Social Trends. Dr. Winston has been technical editor of rural research

publications of the Federal Emergency Relief and Works Progress Administrations since 1934. Together they have compiled a stirring analysis of the human effects of the "farm problem" and the efforts at rural reconstruction during the seven years 1931–1937.

Drawing freely from the reports and files at their disposal, the authors have presented a valuable analysis of rural distress and insecurity as they affect people. Richly documented with case-study illustrations, the story of devastated soil and people is logically and effectively presented. The insight into the problems of the landless, the low-income families, and perplexed youth makes the book a valuable supplement to all economic, chemical, and political analyses of rural-area problems. The implications of rural sociology for the whole country are developed.

The changes in public opinion and in the thinking of leaders behind emergency relief, rehabilitation, and prevention of further distress are interpreted.

A helpful index rounds out a valuable presentation, a fitting addition to the growing list of contributions of the University of North Carolina Press.

Planning the Community School, by N. L. Engelhardt and N. L. Engelhardt, Jr. New York: American Book Company, 1940, 176 pages.

The recognition of the wastefulness of partial use of school plants and the increasing demands for adult community facilities have focused attention upon the planning of new and renovated school buildings with multiple purpose adaptations. The authors systematically analyze the variety of activities that are being developed in school buildings in addition to the "regular" school program, then they bring together the best recommendations and practices in physical planning of school buildings for the community school auditorium, indoor game spaces, social recreation spaces and cafeterias, space for community music activities, workshops for the arts and crafts, etc.

The listing of eleven schools that illustrate practical applications of functional planning is helpful for those who wish to visit before they plan new schools. The bibliography is selective and useful.

The final chapter brings to the reader's attention aspects that might be overlooked in considering community school planning merely an architectural and school organization problem. The importance of population

changes and trends, social problems and attitudes, community planning, and the integration of school and community life are suggested.

Those who have the responsibility for planning school buildings will find this book indispensable; students of education and educational sociology will find this translation of the changing concept of the role of the school into terms of space, structures, and functional design a valuable supplement to the accumulating materials on the community school.

Mothers of the South (Portraiture of the White Tenant Farm Woman), by MARGARET JARMAN HAGOOD. Chapel Hill: University of North Carolina Press, 1939, 246 pages.

This volume reports one unit of the program of the Subregional Laboratory for Social Research and Planning under the auspices of the Institute for Research in Social Science at the University of North Carolina, of which Dr. Hagood is Research Associate.

This descriptive analysis of the attitudes and activities of more than one hundred white tenant-farm mothers living within a selected North Carolina subregion (compared with an equal number living in the "Deep South"—Georgia, Alabama, Mississippi, and Louisiana) brings together the results of careful case-study techniques, places them in interesting, effective frames of reference, and then supplements them with related statistical data from other studies.

Part I describes the farm-life pattern, the role of the farm-tenant mother, the decline of the value of single crops, and the agricultural status ladder.

Part II presents the case-study materials on tenant women, their work in field and house, child bearing, child "raising," wifehood, community participation, aging, and worries.

Part III provides significant meanings.

Preceding each part is a page of excerpts that highlights the findings and interpretations. These three pages of fine type, in themselves, make an important contribution as a technique in highlighting that stimulates rather than substitutes for the reading of the book. An index is included.

Mothers of the South brings an intimate picture of women's role in restricted rural Southern communities. For students who know only the patterns of urban and suburban family life, this book should present a challenging revelation of the varieties and importance of cultural characteristics.